

AcceleraPCI™

Installation Guide Reference Manual

This manual is a supplement to the AcceleraPCI Installation Guide. Please refer to the Installation Guide for installation instructions.

EVERGREEN
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Evergreen AcceleraPCI

Installation Guide Reference Manual

This reference manual is a companion for the Installation Guide poster in the AcceleraPCI product package.

AcceleraPCI INSTALL Disk **1**

This section explains the INSTALL disk. The information it provides is intended to make the installation process easier. The program also gathers data to help troubleshoot any problems that may arise during installation and use.

AcceleraPCI Troubleshooting Guide **2**

This section tracks the Installation Guide numbering format to address any problems that may arise during any step of AcceleraPCI installation.

AcceleraPCI BIOS Setup Screens **8**

This information is for advanced users only. It describes the options available within the AcceleraPCI BIOS. If you have questions about these settings, please contact Technical Support.

AcceleraPCI Dip-switch Settings **10**

This section describes how to change the dip-switch settings on the AcceleraPCI to facilitate compatibility.

System BIOS Settings **12**

There are cases when changing settings on your original system motherboard may expedite AcceleraPCI troubleshooting. This section provides BIOS configuration options for your original system.

Installing Additional Memory **13**

AcceleraPCI comes with 64 MB of PC-66 SDRAM, but has an extra expansion slot if you would like to add another SODIMM PC-66 memory module. This section is a guide to installing additional memory in AcceleraPCI's memory expansion slot.

Contact and System Information **16**

If you need technical support during or after the installation of AcceleraPCI, please fill out the form at the end of this reference manual first. The more complete and accurate the information you provide, the faster we can resolve your problem.

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AcceleraPCI INSTALL Disk

Evergreen's INSTALL disk(s) – performs a compatibility check on your system so you will know whether to continue with the upgrade. The INSTALL disk also captures system configuration information to augment our compatibility database. After running the INSTALL disk, please follow the instructions on the registration instruction card and return the disk via the postage-paid mailer.

NOTE: The INSTALL disk does NOT modify your system's hardware or software.

The INSTALL software provides this information:

- Compatibility test – whether or not AcceleraPCI will run in your system
- Performance tests measuring before and after installing AcceleraPCI
- System specific information
- Motherboard specific notes
- Provides an .INF file for use by Microsoft Windows9x and Windows2000 Operating systems. This file provides brand and model information for Windows.

AcceleraPCI Troubleshooting Guide

This guide is based on the steps outlined in the AcceleraPCI Installation Guide. If you cannot resolve your problem with the information provided in this document, please call Evergreen's Customer Care Center at 541.758.7341 for assistance after filling out the contact information beginning on page 16.

1. Preparing to start.

Run the INSTALL disk for compatibility results.

If your product is missing any documentation or disk(s), please contact Evergreen's Customer Care Center at 541.757.0934 for assistance. Technical support is not available at this number.

2. Open system case.

3. Identify the PCI slots.

Problem: The PCI card will not fit in my system.

Case components, motherboard components and wires can interfere with the installation of the card. Rearranging the order of your PCI or ISA cards may provide a free PCI slot for the AcceleraPCI.

If you move any PCI cards, they may become disassociated from their drivers. Please follow these steps if you need to rearrange any PCI cards in your system.

Windows 95 or Windows 98

1. Turn off your system.
2. Ground yourself to discharge any static electricity from your body by touching an unpainted metal surface, such as the computer chassis.
3. Remove the slot cover screws and rearrange the cards to provide the space necessary to install the AcceleraPCI. The heatsink/cooling fan should have .25 inch of clearance to cool the AcceleraPCI processor properly.
4. Ensure that the AcceleraPCI card is NOT installed.
5. Start your system and allow your operating system to load.

6. When your operating system loads, you may be prompted for driver disks or operating system disks. This process may require multiple system reboot cycles (1 to 4 typically) to allow all the PCI devices to be identified and their drivers loaded. After this process, the system should boot without prompting you for device driver support.
7. When the device drivers are reinstalled and you have verified that all the PCI devices are working properly, continue installing the AcceleraPCI following the Installation Guide.

WindowsNT or Windows2000

1. Turn off your system.
2. Ground yourself to discharge any static electricity from your body by touching an unpainted metal surface, such as the computer chassis.
3. Remove the slot cover screws and rearrange cards to provide the space necessary to install the AcceleraPCI. The heatsink/cooling fan should have .25 inch of clearance to cool the AcceleraPCI processor properly.
4. Ensure that the AcceleraPCI card is NOT installed.
5. Start your system and allow your operating system to load.
6. When your operating system loads, check the devices in your system to ensure they are operating properly. Windows NT is a non-Plug and Play operating system and may require that you delete and reinstall the device driver(s) for the PCI card(s) you have rearranged. When deleting and re-installing drivers, you may be prompted for device driver disks or operating system disks.
7. When the device drivers are reinstalled and you have verified that all the PCI devices are working properly, continue installing the AcceleraPCI following the Installation Guide.

4. Install the card.

5. Reconnect any cables to the system that were disconnected.

6. Restart your system.

Problem: When the system is turned on, the error message “Operating System not found” is displayed.

Check wiring connections to the hard drive.

Please review the section “System BIOS Settings” on page 12.

Problem: When the system is turned on, the system does not boot up and just shows a blank screen.

Did the INSTALL software warn you about not running this product in your system?

Yes Accelerapci is currently incompatible with your system. Please contact your reseller for return information.

No

- This problem can occur if cards are not fully seated, internal or external wires are not completely connected, memory is not fully seated or if the system is not getting power.
Start with a slow and thorough check of your system. Check all wires, cards, and RAM. Are the fans on your system starting? Do you have monitor, keyboard, and system lights? Do you hear and see the normal start up process? Did you remove or add any other components to the system?
- If you are still experiencing difficulties after investigating the possible causes mentioned above, remove the Accelerapci and start your system. If your system starts normally without Accelerapci installed, there may be BIOS or jumper settings you can change that would allow Accelerapci to initialize and boot when you reinstall it. Please refer to the sections “System BIOS Settings” on page 12, or “Accelerapci dip-switch settings” on page 10.

Problem: When my system starts, the BIOS will only recognize the original processor, not the AcceleraPCI card.

Your system will utilize the original processor and RAM in your system when you initially start your system. The system should tell you three things during AcceleraPCI initialization: a message that the ETI BIOS is starting, the processor speed and a memory test of the RAM in the card. If this does not display, see the section below, “When my system starts, the operating system loads and the AcceleraPCI card does not initialize.”

Problem: When my system starts, the operating system loads and AcceleraPCI does not initialize.

There can be several potential causes. Has the card been operational in this system?

Yes The card, processor or RAM may not be fully seated.

- No**
- The AcceleraPCI processor or RAM may not be fully seated.
 - The upgrade card may be installed in non-bus mastering PCI slot. Please move the PCI card to a bus-mastering slot or configure the slot to support bus mastering via the BIOS/CMOS setup utility for your original system.
 - If additional RAM was added to the PCI card it may not be compatible, please remove it and install AcceleraPCI again.
 - Please review the section “System BIOS Settings” on page 12.
 - Please review the section “AcceleraPCI dip-switch settings” on page 10.
 - AcceleraPCI may not be compatible with the motherboard.

Problem: When my system starts, it freezes during the ETI BIOS load screen.

Did the INSTALL software warn you about not running this product in your system?

Yes AcceleraPCI is currently incompatible with your system. Please contact your reseller for return information.

- No • Please review the section “System BIOS Settings” on page 12.
- Please check the memory on the AcceleraPCI card. It may not be fully seated, or, if you added additional memory, make sure it is the correct type (PC-66 or PC-100 SODIMM SDRAM) and that it is correctly installed. Please refer to the section “Installing Additional Memory” on page 13 to confirm the installation process.

Problem: When my system starts, the card freezes during ETI memory count.

Did the INSTALL software warn you about not running this product in your system?

Yes AcceleraPCI is currently incompatible with your system. Please contact your reseller for return information.

- No • Please check the memory on the AcceleraPCI card. It may not be fully seated, or incompatible memory may have been added.
- Please review the section “System BIOS Settings” on page 12.
- Please review the “AcceleraPCI Dip-switch Settings” section on page 10.

Problem: After installing AcceleraPCI, system performance did not increase.

How are you determining the lack of performance increase? Install disk? OS loading? Using applications? Third party benchmark software?

There are four items to consider when determining performance changes.

- I. What performance tests are you using to evaluate the performance changes? Are you evaluating performance based on the same tests before and after the installation?
- II. Does the performance metric measure processor intensive functions or other functions in the system that are bound by peripheral devices? For instance, changing the processor speed will not change the hard drive speed.
- III. Are there other changes to the system that may also affect performance testing, e.g. adding memory or changing CMOS settings?
- IV. If the performance test utilizes “benchmarking” or “system information” software, does the program recognize the components correctly?

Is there an improvement in processor related performance? If not please review the section titled “When my system starts, the operating system loads and AcceleraPCI does not initialize” on page 5.

8. Start your operating system.

9. Run existing software to make sure your system works correctly.

Problem: The system will intermittently lock up or freeze.

- Please verify that the AcceleraPCI fan is spinning and there is at least .25 inch clearance above the fan blades. This may require that the hard drive, CD-ROM and floppy cables are secured together to allow proper airflow.
- Please review the section “System BIOS Settings” on page 12.

AcceleraPCI BIOS Setup Screens

To gain access to the AcceleraPCI BIOS setup screen, be prepared to press the F1 key during the AcceleraPCI BIOS boot process. There are four menu screens for the BIOS setup: **Summary, Control, CPU Setup and Exit.**

1. Summary

This screen provides BIOS version information for AcceleraPCI.

2. Control

Enable AcceleraPCI Card:

Options are ON and OFF. Default is ON.

Even if the setting is on OFF, you can still access this BIOS configuration program to enable the card.

Fast memory check:

Options are ON and OFF. Default is ON.

OFF will disable the memory test during initialization.

3. CPU Setup

CPU/Internal PCI clock Speeds:

Options start at 66 MHz. Default is 66.8 MHz. Do not change this. If you do, the processor will be operating out of specifications and may cause intermittent failure. Over-clocking will also generate extra heat in the system.

CPU Clock multiplier:

The Intel® Celeron® processor distributed with AcceleraPCI card is clock-locked by Intel. Changing this setting will have no effect.

CPU Core voltage:

Default is 2.00 V. Do not change this. Incorrect voltage will cause intermittent operation, generate extra heat in the system and damage the processor or system components.

4. *Exit*

<**F10**> saves changes and restarts the system

<**ESC**> to exit without saving

<**F5**> to continue working in the BIOS configuration program.

AcceleraPCI Bus/Core Speed

The AcceleraPCI is designed to run with a 66 MHz front-side bus and 433 MHz Celeron core speed. During the AcceleraPCI memory count, the screen will display both the bus and core speed. Make sure both are correct.

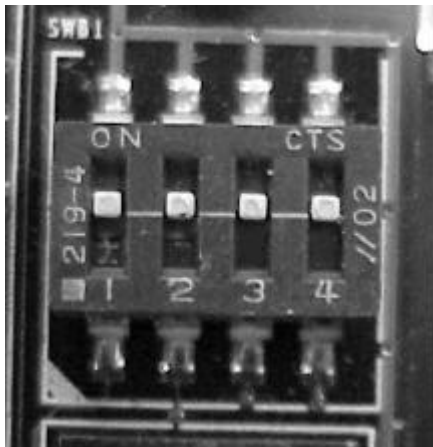
AcceleraPCI Dip-switch Settings

NOTE: The only dip-switch you may change is #4.

The AcceleraPCI has a single bank of dip-switches. The dip-switches are located on the non-processor side of the card next to the bracket (see below for picture of dip switches).

To change dip-switch #4, use the end of a paperclip. Ensure that the power is off to the system and gently push the switch to the opposite side.

1	ON	Reserved
2	ON	Reserved
3	ON	Reserved
4	ON	Normal operation
	OFF	Use this setting when the install software responds that your system is compatible, but you are having problems starting the AcceleraPCI.



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System BIOS Settings

Problem: Need BIOS settings to assist with compatibility.

Solution: Depending upon the manufacturer of your system's original BIOS, there may be some settings that can be adjusted to increase compatibility. Do not be concerned if you do not see all of the setting options.

Phoenix® BIOS Advanced Settings:	To access the BIOS configuration utility press <F2> during POST
USB Legacy Mode	Set to disabled
Peripheral configuration:	
Legacy USB support	Set to disabled
PCI Configuration:	
Bus mastering	Set to enable
Flash ROM access	Set to enable
Boot:	Set the hard drive to primary. If a bootable ISA card is the first option, it may not allow the system to boot.
Hard drive	Set to enable
Scan user flash area	Set to enable

AMI BIOS Boot Options	To access the BIOS configuration utility press or <F1> during POST or memory count
Scan user flash area	Set to enable

Award™ BIOS	To access the BIOS configuration utility press during POST
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Integrated peripherals:

USB keyboard support Set to disable

Installing Additional Memory

The memory described in this section must be PC-66 or PC-100 SODIMM SDRAM. This memory is designed for laptop computers and is available through any reseller outlet. AcceleraPCI comes with 64 MB of memory, but supports up to 256 MB. If you add additional memory, it will augment the existing 64 MB. If you would like to move up to 256 MB, you will have to replace the original AcceleraPCI memory module with a larger (128MB) module.

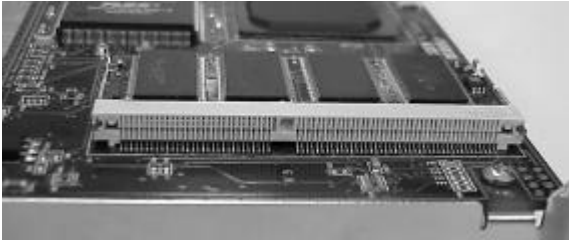
- a) Memory can be installed one bank at a time or as a pair. Always handle the SODIMM memory module by its edges. Do not flex or bend the SODIMM memory module or touch the gold contacts. Carefully remove the SODIMM memory module from the anti-static bag.
- b) Look at the picture below. Notice that both the SODIMM and the socket have a keyed notch on the connector edge. The notch on the socket must align with the corresponding notch on the SODIMM.



- c) Holding the module at approximately a 30-degree angle from the card, push the memory module forward to insert the gold edge into the socket. With your thumbs on the top edge of the module and your fingers on the outer edge of the socket (see below), apply even pressure until the SODIMM is firmly seated.



- d) Press down on the SODIMM until it clicks into place.



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Contact and System Information

When contacting Technical Support, please have the following information available.

Contact Information

Name

Phone number

Fax number

E-Mail

Specific Issues:

System Information

Brand

Model

Motherboard

Chipset

Bios MFG

Bios Version

Bios Date

MBID FN

**Operating
System**

(continued next page)

AcceleraPCI

RAM added to AcceleraPCI

card:

PCI devices	Slot 1	Slot 2	Slot 3	Slot 4
Device				
Brand				
Model				
Device ID				
Vendor ID				

There are several files on the INSTALL disk which are useful to our technicians in troubleshooting the system. Please have this information available or e-mail these files along with your request for assistance to techsupport@evertech.com

*.ETB (any file that ends in ETB)

REGISTER.TXT

LOG.DAT

PCICONFG.TXT

SYSTEST.DAT

Some of the above files may not exist for all systems.

Evergreen Support Contact Information

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